

Patent Number(s): JP53051295-A

Title: Polyester prodn. from terephthalic acid and ethylene glycol - using catalyst obt'd. by reacting antimony cpd., cobalt cpd. and phosphorus cpd. in ethylene glycol solvent

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Patents Cited by Inventor: 0

Articles Cited by Inventor: 0

Patents Cited by Examiner: 0

Citing Patents: 2

Articles Cited by Examiner: 0

Abstract:

Prepn. of polyester comprises esterifying terephthalic acid wit ethylene glycol and polymerising the resulting ester to obtain polyester. A soln. obt'd. by reacting an Sb cpd., a Co cpd. and a P cpd. in ethylene glycol solvent is used as catalyst.

Esterification is by a simple batch process, a semi batch process or a continuous process. The catalyst is prepd. by mixing and reacting ethylene glycol solns. of Sb cpd., Co cpd. and P cpd. by adding Co cpd. to the ethylene glycol soln of Sb cpd. to react and then adding P cpd. to the resulting soln. or by mixing the ethylene glycol solns. of Sb cpd. and of P cpd. and then adding Co cpd. to react and dissolve.

The amt. of Sb cpd. is 0.005-3.0 (1.0-2.0) wt.% in terms of Sb₂O₃, the amt. of Co cpd. is 0.005-4.0 (1.0-2.0) wt.% in terms of Co acetate and the amt. P cpd. is 0.001-3.0 (0.5-2.0) wt.% in terms of trimethyl phosphate.

The esterification rate is increased, formation of diethylene glycol as a by-prod. is inhibited and colouring of the resulting polymer is prevented.

International Patent Classification: C07C-067/08; C07C-069/82; C08G-063/34

Derwent Class: A23 (Polyamides, polyesters, polycarbonates, alkyds)

Derwent Manual Code(s): A02-A06; A02-A07A; A05-F04A

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